

HP StorageWorks Modular Smart Array 30

Installation Overview

(Formerly HP StorageWorks Model 4400
Family of Ultra320 SCSI Disk Enclosures)



System Requirements

For information about system compatibility and supported hard drives, refer to

<http://www.hp.com>

Safety Information



WARNING: To reduce the risk of personal injury or damage to the equipment, consult the safety information and user documentation provided in the system kit before attempting the installation.

Regulatory Notice

The rating label on the device gives the class (A or B) of the equipment. Class B devices have an FCC logo or ID on the label. Class A devices do not have an FCC logo or ID on the label. After you have determined the device class, refer to the *HP StorageWorks Modular Smart Array 30 User Guide* for complete regulatory compliance notices. This user guide is provided in the system kit as a file on the Documentation CD.

Getting Help

If you cannot find the information that you need in this overview, there are several other resources that you can use to get more detailed information.

- The *HP StorageWorks Modular Smart Array 30 User Guide*
- <http://www.hp.com>
- The nearest HP authorized reseller (locations and telephone numbers of these resellers are given on <http://www.hp.com>)
- HP technical support telephone numbers:
 - In North America, 1-800-652-6672
 - For other regions, telephone numbers are given on <http://www.hp.com>

© 2003 Hewlett-Packard Development Company, L.P.

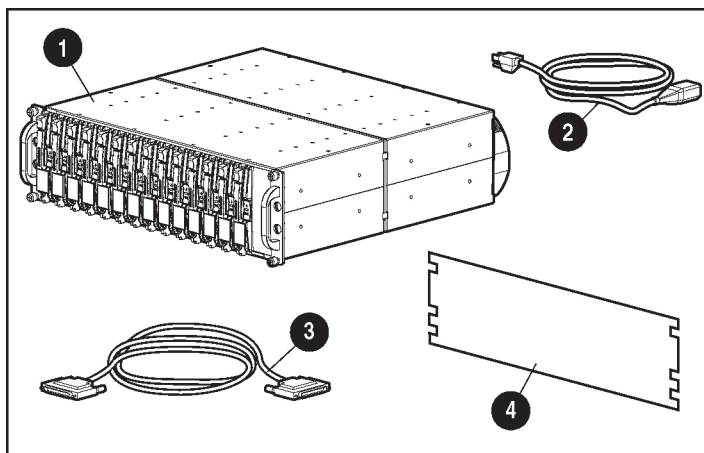
Hewlett-Packard Company shall not be liable for technical or editorial errors or omissions contained herein. The information in this document is provided "as is" without warranty of any kind and is subject to change without notice. The warranties for HP products are set forth in the express limited warranty statements accompanying such products. Nothing herein should be construed as constituting an additional warranty.

Second Edition (November 2003)
Part Number 335899-002



335899-002

Kit Contents

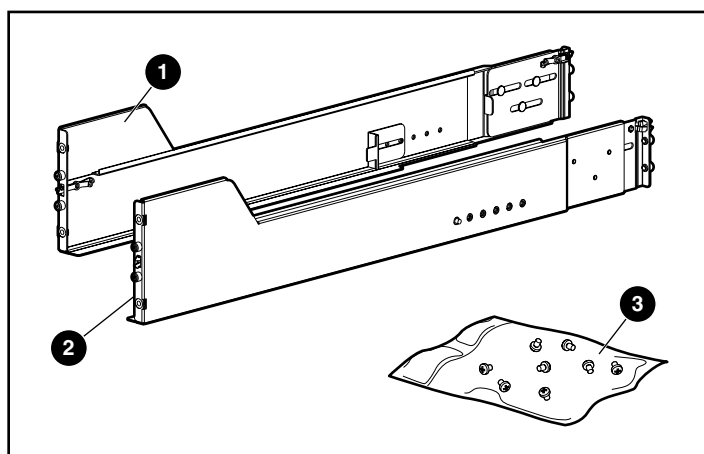


Item Description

- | | |
|---|---|
| 1 | Modular Smart Array 30 with 14 drive blanks |
| 2 | Power cords (2) |
| 3 | VHDCI cables (number of cables in kit depends on the number of channels on the I/O module supplied) |
| 4 | 3U rack template |
| 5 | Rack mounting hardware kit (see next section) |
| 6 | Documentation CD* |
| 7 | Any printed documentation* |

*Not illustrated

Rack Mounting Hardware Kit



Item Description

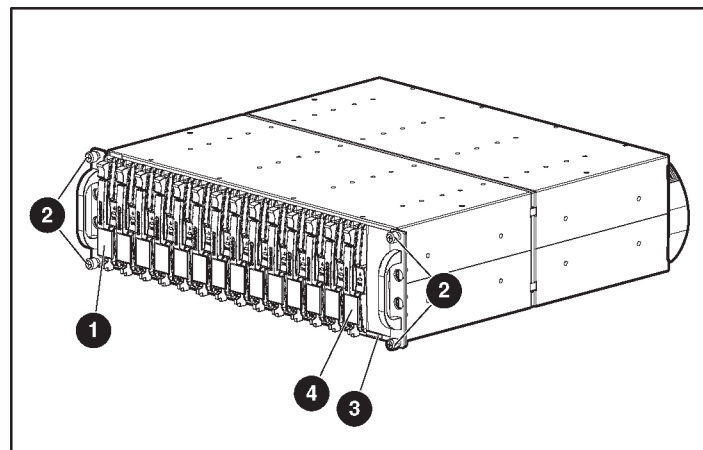
- | | |
|---|---|
| 1 | Left rack rail |
| 2 | Right rack rail |
| 3 | Pins for round-hole rack conversion (8) |

This kit provides the required components for quick deployment in Compaq branded, HP branded, and most square- and round-hole third-party racks. The adjustable feature of the rack rails enables installation in racks with depths of 69.9 to 73.8 cm (27.5 to 29.1 in.).

If you are installing the system in an M-Series rack, contact an authorized reseller to obtain an M-Series Rack Rail option kit.

Identifying System Components

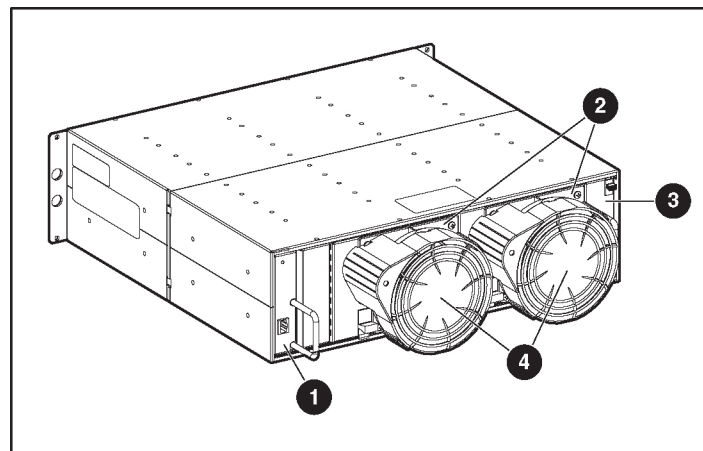
Front Components



Item Description

- | | |
|---|-------------------------------------|
| 1 | Disk drive or drive blank in bay 1 |
| 2 | Thumbscrews |
| 3 | System LEDs |
| 4 | Disk drive or drive blank in bay 14 |

Rear Components



Item Description

- | | |
|---|-------------------------------------|
| 1 | Environmental Monitoring Unit (EMU) |
| 2 | Power supply units |
| 3 | Ultra320 I/O module |
| 4 | Blowers |

Optimum Environment

When installing the system in a rack, select a location that meets the environmental standards described in the user guide.

For adequate airflow, use appropriate high-airflow inserts in rack cabinet doors and observe industry-standard practices for adequate spacing between racks or rows of racks.

Installing the System

Before you begin installing the system in a rack, remove the system components to reduce the system weight and make it more manageable.

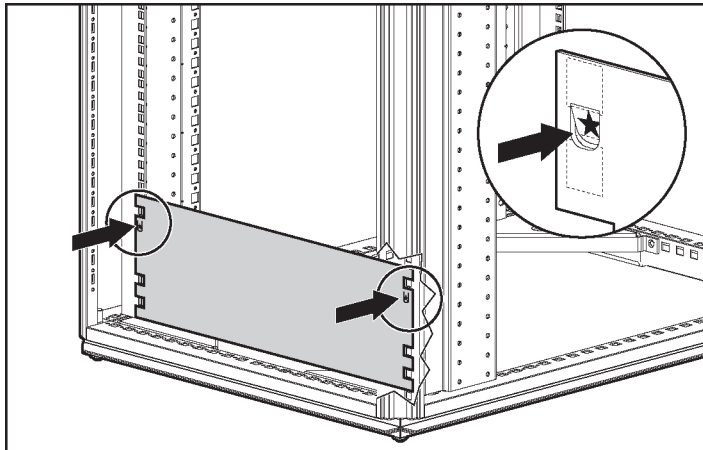


WARNING: The system weighs 31 kg (68 lb) when full, and 11 kg (24 lb) when the components have been removed. Install the system in the lowest available position in the rack, and use two people to install it.

NOTE: For optimum U320 speeds, the EMU and I/O Module contained in this kit must be installed.

The following procedure describes installation in a square-hole rack. For more information, or for information about installing the system in a round-hole rack, refer to the user guide on the Documentation CD.

1. Use the rack template to mark the required location of the rails on the rack.
 - a. Align the lower edge of the template with the bottom of the rack (or the top of the previous rack component) and push the tabs in to hold the template in place. Be sure that the template is horizontal.

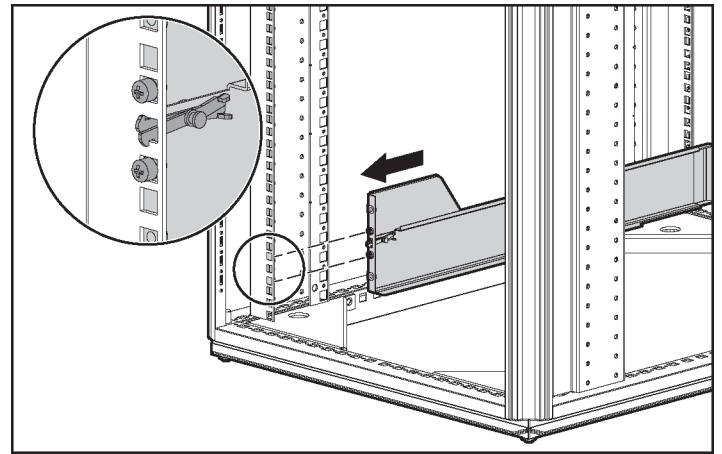


- b. Mark the required location of the rails on the rack with a pencil.
 - c. Repeat this procedure to mark the back of the rack, using the back of the template.
2. Identify the left (L) and right (R) rack rails by markings stamped on the sheet metal.

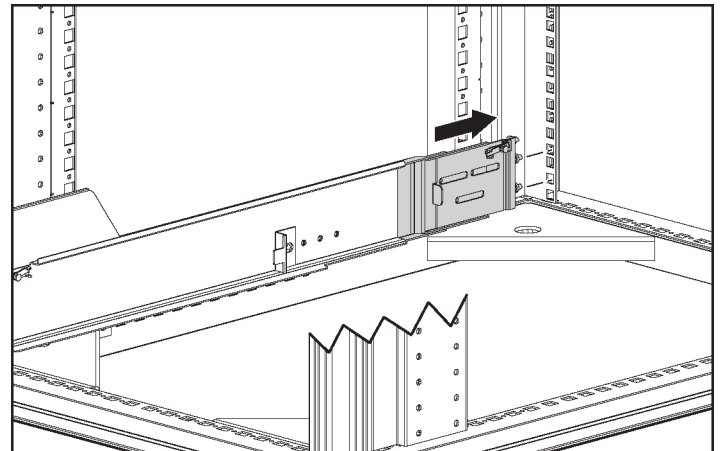


WARNING: Unless you are converting the rails for use in round-hole racks, do not remove the pins from the ends of the rack rails. These pins are load-bearing.

3. Slide the front end of the left rack rail into the inside front of the rack until the scissor-like locking latch engages with the rack uprights.



4. Confirm that the rail pins extend through the U-holes that were marked in step 1. If this is not the case, repeat step 3.
5. Extend the back end of the left rack rail toward the inside rear of the rack until the scissor-like locking latch engages with the rack upright.



6. Confirm that the rail pins extend through the U-holes that were marked in step 1. If this is not the case, repeat step 5.
7. Repeat steps 3 through 6 for the right rack rail.

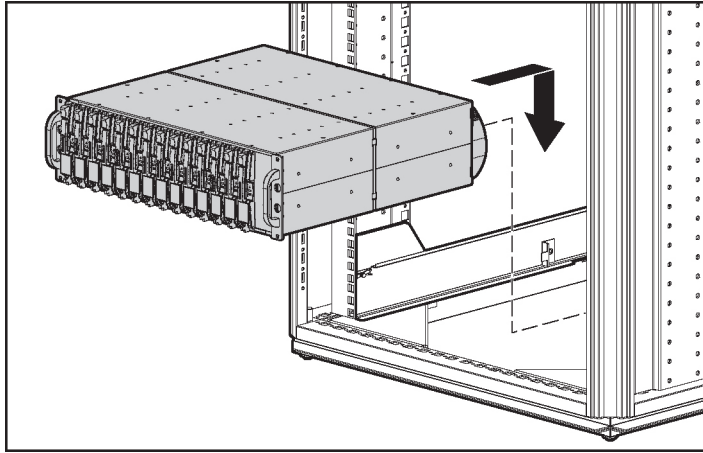
8. Align the system with the rails, and slide it into the rack.



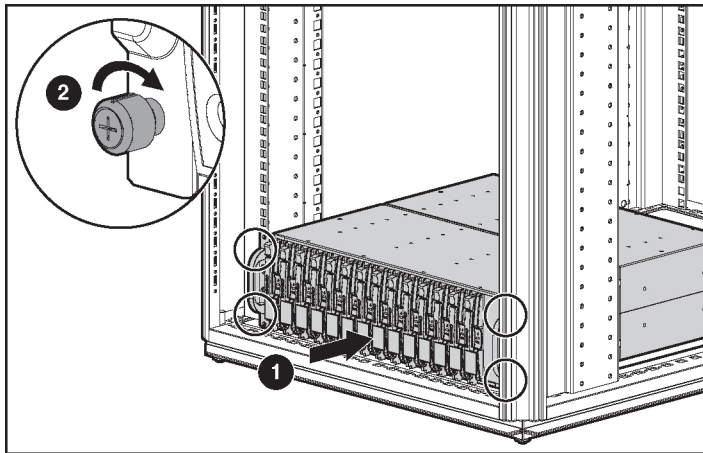
WARNING: Do not use the component handles to lift the system. These handles are not designed to support the weight of the system.



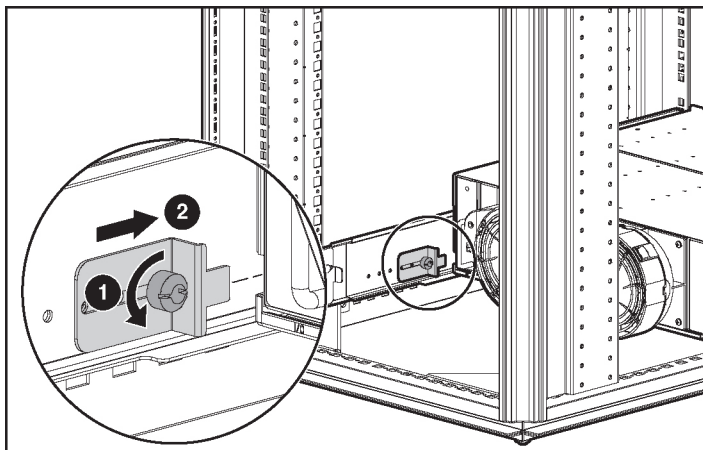
WARNING: If the system is being loaded into the rack above chest level, use a third person to help align the system with the rails while the other two people support the system weight.



9. Tighten the thumbscrews to secure the system to the rack.



10. If moving the rack with the system installed, use the shipping bracket to secure the system in the rack:
- Slide the shipping bracket forward until it engages with the system chassis.



- Tighten the shipping bracket screw.

Completing the Installation



CAUTION: The disk system does not have power switches. Be sure that the system is correctly configured before connecting the power cords.

- Reinstall the components in the system.
- Connect cables from the VHDCI sockets on the I/O modules to the corresponding connectors on a controller system.
- Connect the AC input sockets of each power supply unit to an AC power source.



WARNING: To reduce the risk of electric shock or damage to the equipment:

- Do not disable the power cord grounding plug. The grounding plug is an important safety feature.
- Plug the power cord into a grounded (earthed) electrical outlet that is easily accessible at all times.
- Unplug the power cord from the power supply to disconnect power to the equipment.
- Do not route the power cord where it can be walked on or pinched by items placed against it. Pay particular attention to the plug, electrical outlet, and the point where the cord extends from the system.

- Confirm that the system components are all functioning normally by observing the condition of their status LEDs. Refer to the user guide on the Documentation CD for a description of the normal LED display patterns.

Installation is complete.